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Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

YOUR LOCAL SOIL CONSERVATION SERVICE FIELD OFFICE, OR: William F. Weller

Water Supply Specialist Soil Conservation Service W. 316 Boone Avenue, Suite 450 Spokane, WA 99201-2348

(509) 353-2341

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it meits. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soli Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthy or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthy and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

All programs and services of the USDA Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Spokane, Washington Soil Conservation Service State Conservationist Lynn A. Brown

Released by

U.S. Department of Agriculture Soil Conservation Service Chief William (Bill) Richards

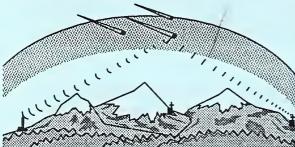
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Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Soil

Basin Outlook Reports

April 1, 1992



W. 316 Boone Avenue Suite 450 Spokane, WA 99201-2348 **United States** Department of Agriculture

Soil Conservation Service







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WASHINGTON WATER SUPPLY OUTLOOK

APRIL 1992

GENERAL OUTLOOK:

WASHINGTON Water Supply Outlook Report as of April 1, 1992: March weather dealt the snowpack a double blow, with above normal temperatures and below normal precipitation. Temperatures varied from five degrees above in the Seattle area to nine degrees above in the Okanogan Basin. Low elevation snowpack is gone, with snow remaining only above the 3500 foot elevation. The snowpack varies from 3% in the Elwah River Basin to 98% in the Chelan Washington's SNOTEL sites were averaging 62% of normalsnowpack on April 1 (by April 8, it was 57%), down from 80% a month ago. March precipitation was 37% of normal state wide and varied from 20% of average in the Olympic Basin to 49% in the Yakima Basin. Year-to-date precipitation varies from 71% in the Okanogan to 99% in the Walla Walla Basin. Forecasts for 1992 runoff vary from 88% of average for the Entiat River to 46% for the Mill Creek in the Walla Walla Basin. March streamflows varied from 49% of normal on the Walla Walla River near Milton Freewater, Oregon, to 129% on the Chelan River. reservoir storage is generally good, with reservoirs in the Yakima Basin at 110% of average and 77% of capacity.

SNOWPACK:

Warm dry weather set in over Washington during March, causing a deterioration in the mountain snowpack. SNOTEL sites in Washington have a snowpack 62% of average for April 1, statewide. Maximum snow cover, with a snow depth of 130 inches and a water content of 65 inches is at Jasper Pass on Mount Baker. This site would normally have 86.0 inches of water content on April 1. Snowpack varies over the state from 98% of normal in the Chelan Basin to 3% in the Elwah River in the Olympic Basin. Snowpack along the west slopes of the Cascade Mountains includes the Green River with 27%, the Lewis River 17% and the Skagit 74%. Snowpack in the Okanogan is at 62% down from 87% last month, and the Yakima is at 55% of normal.

PRECIPITATION:

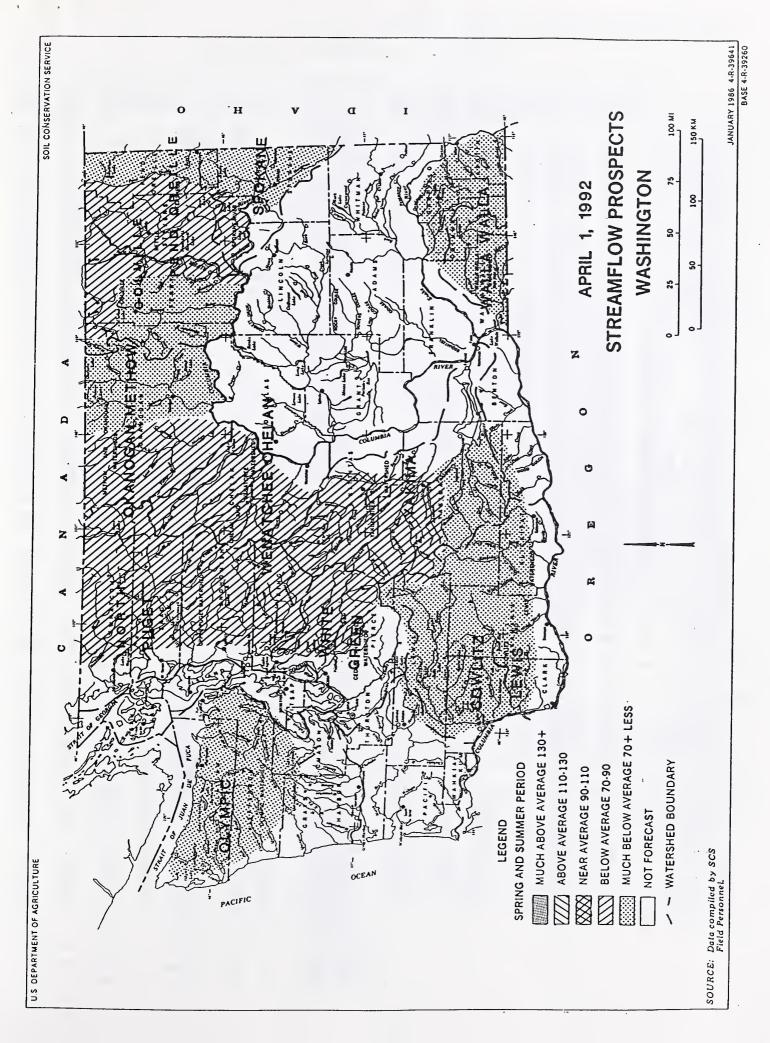
March precipitation from National Weather Service stations was 37% of average state wide. The year-to-date precipitation state wide is 80% it varied from 99% of normal in the Walla Walla Basin to 71% in the Okanogan Basin. March precipitation varied from 49% of average in the Yakima Basin, to 20% in the Olympic Basin. SNOTEL sites in Washington showed high elevation year-to-date precipitation values to be 83%, down from 93% a month ago. Maximum year-to-date precipitation was at the June Lake SNOTEL site near Mt. St. Helens, with 93.4 inches since October 1, 1991. Normal for this site would be 118.2 inches.

RESERVOIR:

Reservoir storage in Washington is generally good for April 1. Reservoir storage in the Yakima Basin was 816,400 acre feet, 110% of normal. Storage at other reservoirs include Roosevelt at 240% of average. Water is being held back for salmon flushing later in the year. The Okanogan reservoirs are at 113% of April 1 normal. The power generation reservoirs contain the following: Coeur d'Alene Lake, 168,700 acre feet, or 72% of normal; Chelan Lake, 158,000 acre feet, 74% of average and 23% of capacity, and Ross Lake at 745,700 acre feet and 250% of average, and 53% of capacity.

STREAMFLOW:

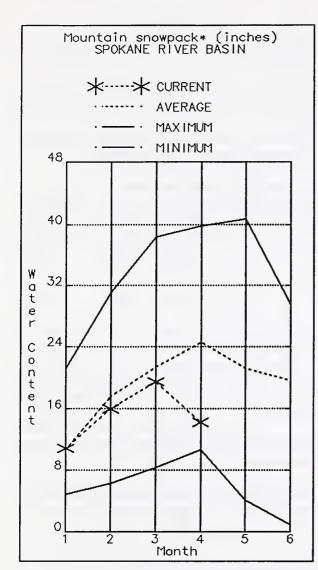
Forecasts for summer streamflow are for below to much below average and vary from 88% of average for Entiat River to 46% of normal for Mill Creek in the Walla Walla River Basin. forecasts for some west side streams include: Cedar River, 65% down from 73% last month; Skagit River, 86%; and the Dungeness River, 63%. Some east side streams include the Yakima River at Parker, 70% down from 80% last month; the Okanogan River at Tonasket, 61 down from 78%; and the Colville River, 71%. March streamflows varied throughout Washington, with above normal flows in the north half of the state and below normal in the southern The highest in the state, the Similkameen River was at part. The Columbia River, at Birchbank was at 126% and at The Dalles, it was 83%. Other streamflows were the following percent of normal: the Okanogan River, 131%; the Walla Walla River, which at 39% was the lowest in the state; the Spokane River, 78%; the Yakima at the Parker, 120%; the Wenatchee River at 164% and the Methow with 176%. The Cowlitz River was 65%.

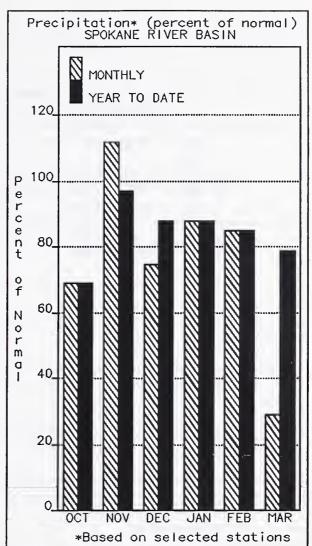


DATA CURRENT AS OF: 4/ 7/92 11:38:34 BASIN SUMMARY OF SNOW COURSE DATA

APRIL 1992

							F	JAKIT 12	192						
SHOW COURSE	·	ELEVATIO	n date	SNOW Depth	WATER	Last Year	AVERAC 1961-9		SE	ELEVATIO	ON DATE	enow Depth	WATER CONTENT	LAST	AVERAGE
DEND OPPILLS BY	/FD				CONTENT	1548	1901-					DEFIA	CONTENT	YEAR	1961-90
PEND OREILLE RIV BENTON MEADO		2370	3/27/9	2 0	.0	3.8	3.8	STEMILT CREEK STEMILT S		5000	3/27/92	16	7.2	9.8	12.8
BENTON SPRIN	IĢ	4920	3/27/9	2 19	8.0	15.8	18.6	UPPER WHE	ELER	4400	3/27/92	2 0	.0	4.6	7.8
BOYER MOUNTA BUNCHGRASS M		5250 5000	3/24/9 3/23/9		16.6 21.9	19.4 34.0	25.7 29.5		ELER PILLO K	HT 4400	4/01/92		10.15	10.6	13.6
BUNCHGRASS M	DWPILLOW	5000	4/01/9	2	23.0	30.3	28.0	TROUGH (2		W 5310	4/01/92		4.35	4.9	9.7
HEART LAKE T		4800 6050	3/31/9		9.6	20.4	21.6		•	3100	3/31/92		_		
HOODOO CREEK		5900	3/31/9:		34.8 34.9	51.9 44.8	51.0 46.3			4270	3/30/92	. 6	.0 2.8	1.9 7.7	5.3 15.1
LOOKOUT	(d)	5140	4/01/9		24.0E	29.0	33.7		ASS(2PILLO		4/01/92		6.45	12.2	17.8
NELSON KETTLE RIVER	CAH.	3100	3/31/92	23	9.9	12.6	15.5	BUMPING L		3450 3400	3/30/92 3/30/92		.5 1.0	11.4	14.2 18.3
BARNES CREEK		5300	3/26/92		19.2	25.4	20.6		IDGE PILLO		4/01/92		15.65	19.5	21.2
BIG WHITE MT	H CAH.	5510 407 0	3/29/92		14.8 2.6	20.5 8.5	19.4	CAYUSE PAS COLOCKUN I		5300 5370	4/01/92 3/26/92		35.4E 9.1	79.4 10.4	82.4
CARMI	CAN.	4100	3/29/92	2	.6	7.3	6.4	CORRAL PAS		W 6000	4/01/92		28.55	33.5	16.5 32.6
GOAT CREEK MONASHEE PASS	s CAN.	3600 4500	3/26/92		0	2.9	4.3	Pish lake Pish lake	PILLO	3370 W 3370	3/31/92		13.1	26.8	31.4
SUMMIT G.S.	s can.	4600	3/26/92 3/26/ 9 2		11.3	16.2 8.5	14.0 8.1	GREEN LAKE		6000	4/01/92 3/31/92		14.85 26.4E	28.3 24.3	31.9 33.9
TRAPPING CK I		3050	3/30/92	0	.0	4.8	3.5	GREEN LAKE			4/01/92		16.05	17.8	20.7
TRAPPING CK (COLVILLE RIVER	IP CAR.	4460	3/29/92	3	1.0	9.9	9.8	CROUSE CAN		W 5380 2200	4/01/92 3/30/92		13.25	12.6	19.8 4.3
STRANGER NOON	TAIN	4230	3/25/92		3.7E	8.9	12.2	MORSE LAKE	PILLO	# 5400	4/01/92		40.65	53.1	47.2
POKANE RIVER POURTH OF JUI	v env	3200	2/25/02	•				OLALLIE ME		3630 3630	4/01/92 3/28/92		26.55	46.2 23.6	53.5
LOOKOUT	(d)	5140	3/25/92 4/01/92		.0 24.0E	5.0 29.0	6.8 33.7	SASSE RIDG	E PILLO	f 4200	4/01/92		23.65	25.0	44.8 32.1
LOST LAKE		6110	4/01/92	94	42.1	66.1	57.0	STANPEDE P			4/01/92		26.15	35.9	44.4
MOSQUITO RIDG	PILLOW	5200 5200	3/31/92	61	27.4 29.2	37.4 36.2	37.1 37.3	TUNNEL AVE		2450 7 4500	3/30/92 4/01/92		.0 11.75	12.5 17.9	20.8 22.9
SHERWIN	(d)	3200	4/01/92		.0E	8.4	11.7	ARTANUM CREEK						27.5	22.7
SUNSET	-	5540	3/31/92	52	23.1	34.7	31.8	AHTANUN R. GREEN LAKE		3100 6000	3/31/92		26.49	1.9	5.3
Sukset Engan lake	PILLOW	5540	4/01/92		26.0	37.3	37.6	GREEN LAKE			3/31/92		26.4E 16.05	24.3 17.8	33.9 20.7
QUARTE PEAK	PILLOW	4700	4/01/92		10.1	17.8	21.9	MILL CREEK							
Ragged Ridge Kanogan River		3330	4/01/92	·o	.0		3.5	HIGH RIDGE TOUCHET #2			4/01/92 4/01/92		.05	13.5 23.5	24.4
BRENDA MINE	CAN.	4800	3/31/92	19	7.8	11.5	13.0	LEWIS - COWLIT	Z RIVERS				24.7	43.3	31.9
Brooknere Enderby	CAIF.	3200	3/28/92	15	3.5	8.5	8.6	CAYUSE PAS	S PILLON	5300	4/01/92		35.4E	79.4	82.4
ESPERON CK. U		6200 5410	3/29/92 3/29/92	63 34	29.5 12.5	43.6 17.4	38.6 18.7	JUNE LAKE LONE PINE	PILLON		4/01/92 4/01/92		.0S 5.38	17.1 19.6	36.3 32.1
ESPERON CK. 10	ED CAN.	4690	3/29/92	29	10.3	14.9	15.5	PARADISE P	ARK PILLOW	5500	4/01/92		53.78	68.4	62.1
ESPERON CK. LA		4400 3500	3/29/92 3/27/92	19	6.4	10.8	12.0	PIGTAIL PE			4/01/92		41.85 7.28	58.9 19.2	49.3
GREYBACK RES	CAN.	5120	3/30/92	16	1.4 5.7	15.5 11.4	11.5 9.1	SHEEP CANY			4/01/92		.05	29.0	25.3 39.8
HANILTON HILL	CAN.	4890	3/30/92	16	6.5	18.1	15.1	SPENCER HO			4/01/92		.05	13.3	29.6
HARTS PASS HARTS PASS	PILLOW	6500 6500	3/26/92 4/01/92	62	39.95	54.4 70.4	42.6 41.3	SPIRIT LAKI SURPRISE LI		3100 4250	4/01/92 4/01/92		18.65	1.5 32.3	3.6 44.2
ISINTOK LAKE	CAN.	5500	3/26/92	8	2.6	11.1	7.6	WHITE PASS		4500	4/01/92		11.78	17.9	22.9
LIGHTNING LAKE		4000 6300	3/30/92	21	7.8 6.6	16.2 17.3	12.7 9.5	WHITE RIVER CAYUSE PASS		5300	4/01/92		35.4E	79.4	82.4
LOST BORSE NTH	CAN.	4200	3/30/92	23 4	1.5	9.0	6.7	CORRAL PASS	PILLOW	€000	4/01/92		28.55	33.5	32.6
MISSEZULA MTM	CAN.	5090	3/30/92	12	4.1	12.5	9.4	MORSE LAKE GREEN RIVER	PILLOW	5400	4/01/92		40.65	53.1	47.2
MONASHEE PASS MT. KOBAU	CAN.	4500 5900	3/26/92 3/28/92	26 32	11.3	16.2 9.6	14.0 12.9	COUGAR MIN.	PILLOW	3200	4/01/92		.05	16.1	14.8
MUTTON CREEK (1	5700	3/26/92	21	7.8	9.3	13.2	GRASS HOUNT		2900	3/28/92	0	.0	2.0	15.9
OYAMA LAKE RUSTY CREEK	CAN.	4400	3/26/92 3/26/92	9	2.4	8.1 2.4	7.0 5.9	LESTER CREE	x	3100 4000	3/28/92 3/28/92	*	3.4 2.0	18.6 26.5	23.3 22.0
	PILLOW	4500	4/01/92		5.15	6.0	9.4	SAMILL RID		4700	3/28/92	22	9.0	29.2	36.3
SILVER STAR MT		6000	3/28/92	59	23.0	30.3	29.2	STAMPEDE PA TWIN CAMP	SS PILLOW	3860 4100	4/01/92 3/28/92	23	26.18 8.8	35.9 23.3	44.4 25.1
SUNDAY SURVIT	CAN.	4200 4300	3/26/92 3/30/92	11	3.6	9.4 7.8	9.5 4.7	CEDAR RIVER		4100	3/20/92	2.5	•••	23.3	25.1
TROUT CREEK	CAN.	4690	3/28/92	11	2.0	9.5	7.2	CITY CABIN NT. GARDNER		2390 3300	3/30/92		.0	4.1 6.7	13.6 14.1
Vaseux Creek Thow River	CAN.	4600	3/31/92	11	4.1	7.9	6.6	SHOQUALNIE RIVE			3/30/92	•	.0	•.,	14.1
MARTS PASS		6500	3/26/92	82	34.4	54.4	42.6	ALPINE MEAD		3500	3/30/92	13	6.1	40.9	43.7
	MOTITA	6500	4/01/92	21	39.95	70.4	41.3 13.2	OLALLIE HOM		3960 3630	4/01/92 3/28/92	-	26.55	46.2 23.6	53.5 44.8
NUTTON CREEK (1		3/26/92 3/26/92	0	7.8	2.4	5.9	SKYKOHISH RIVER							*****
SALHON NOWS	PTLLOW		4/01/92		5.15	6.0	9.4	STANPEDE PAS		3860 4070	4/01/92		26.15 22.85	35.9 44.0	44.4
CLOUDY PASS	AH	6500	3/25/92	74	35.5	66.0	42.1	STEVENS PASS		3700	4/01/92 3/31/92	33	14.7	28.4	42.3 33.7
LYNAN LAKE	- Art	5900	3/25/92	104	48.1	75.7	58.7	SKAGIT RIVER							
	PILLOW		4/01/92	76	57.35	84.1	56.9	BEAVER CREEK BEAVER PASS	K TRAIL	2200 3680	3/26/92 3/37/92	33	.0 13.8	9.4 25.3	11.6 29.7
LITTLE MOUS MINERS RIDGE PI	AH ILLOH		3/25/92 4/01/92	76	36.5 43.05	59.5 71.6	44.0	BROWN TOP	AH	6000	3/26/92	100	44.2	84.3	59.6
PARK CREEK RIDO	E	4600	3/25/92	74	34.1	54.3	43.1	CLOUDY PASS	AK	6500 5900	3/25/92	74	35.5 ·	66.0 65.9	42.1
PARK CK RIDGE I RAINY PASS	PILLOW		4/01/92 3/26/92	87	41.9S 38.6	60.6 47.2	41.6	DEVILS PARK PREZIEOUT CI	C. TRAIL	3500	3/26/ 9 2 3/27/92	82 4	1.4	15.5	42.9 11.5
	PILLOW		4/01/92		40.4S	61.0	38.0	HARTS PASS		6500	3/26/92	82	34.4	54.4	42.6
TIAT RIVER								HARTS PASS KLESILKKA	PILLOW CAN.	6500 3710	4/01/92 3/30/92		39.95	70.4 14.6	41.3 12.4
BRIEF POPE RIDGE B			3/27/9 2 4/01/92		.0 10.85	.0	2.5 15.7	LIGHTNING LA		4000	3/30/92	21	7.8	16.2	12.7
UATCHEE RIVER								LYMAN LAKE		5900	3/25/92	104	48.1	75.7	58.7
BERNE-MILL CREE			3/31/92		14.8	23.8	27.2	LYHAN LAKE HEADONS CABI	PILLOW	5900 1900	4/01/92 3/26/92		57.38	84.1 4.3	56.9 4.8
BLEWETT PASS (2) BLEWETT PASS (2)			3/30/92 4/01/92		2.8 6.45	7.7 12.2	15.1 17.8	NEW HOZONEEN		2800	3/26/92	0	.0	12.3	10.4
CHIWAUKUN G.S.		2500 :	3/31/92	0	.0	7.1	8.9	RAINY PASS	PILLON	4780	3/26/92	87	38.6 40.45	47.2 61.0	39.3 38.0
Fish lake P Lyhan lake			1/01/92 3/25/92			28.3 75.7	31.9 58.7	RAINY PASS THUNDER BASI		4780 4200	4/01/92 3/26/92	40	16.2	21.2	21.7
			1/25/92 1/01/92			84.1		BAKER RIVER							
MERRITT	•	2140	3/31/92.	0	•0	9.6	12.8	DOCK BUTTE EASY PASS	AH AH	38 0 0 5200	3/25/92	68 124 ·	3.5	54.0 96.0	65.4 82.9
MISSION RIDGE STEVENS PASS P			1/27/92 1/01/92			12.1 44.0	16.5 42.3	JASPER PASS	AH AH	5400			65.0	94.0	86.0
STEVENS PASS SA	ND SD	3700 2	/31/92			28.4	33.7	MARTEN LAKE	AM	3600	3/25/92	90	4.7	76.0	73.4
TROUGH #2 P.	ILLOW :	5310 4	/01/92		4.35	4.9	9.7	MT. BLUM ROCKY CREEK	MA MA	5800 2100	3/25/92 3/25/92	103	49.0	84.0 27.0	63.1 27.8
UPPER WHEELER P.			1/27/92 1/01/92	<u> </u>	.0 10.15	4.6	7.8 13.6	SCHREIBERS MI		3400	3/25/92		32.0	49.0	58.8
The state of the s	,							SF THUNDER CI	K AM	2200	3/25/92	0	. 0	63.0	4.9
								WATSON LAKES ELWHA RIVER	AM	4500	3/25/92	76	3.8	61.0	.,,
								HURRICANE		4500	3/29/92	1	.6	11.6	22.1
							1	ORSE CREEK		4500	1/28/92	54	23.9	29.8	39.5
								COX VALLEY DUNGENESS RIVER		4500	3/28/92	34			
								DEER PARK		5200	3/31/92	15	6.8	14.0	20.9
							, (MOUNT CRAG	PILLOW	4050	4/01/92		12.65	13.1	
											-,,			_	





SPOKANE RIVER BASIN



April 1, 1992: The April 1 forecasts for summer runoff within the Spokane River Basin are 56% of normal, down from 73% for last month. The forecast is based on a snowpack that is 58% of average and a water year-to-date precipitation value 79% of normal. Precipitation for March was 29% of average. Temperatures in the basin were 7 degrees above normal during March. Streamflow on the Spokane River was 78% of normal for March. April 1 storage in Coeur d'Alene Lake was 168,700 acre feet, 72% of normal.

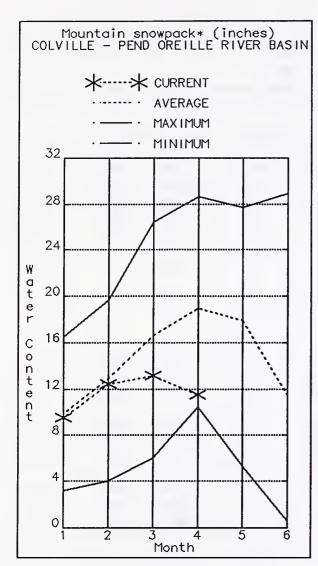
SPOKANE RIVER BASIN Streamflow Forecasts - April 1, 1992

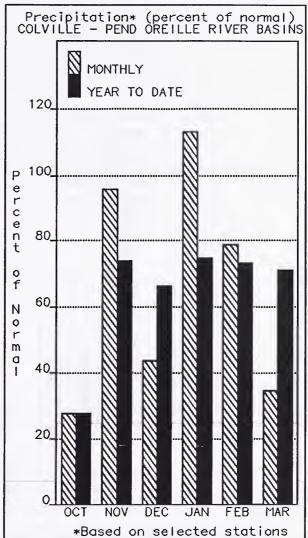
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		<======	Drier ====	== Future Co	onditions ==	===== Wetter	====>>	
Forecast Point	Forecast	 		= Chanca Of E	vceeding * =		 	
Forecast Forme	Period	l 90%	70%	_	Probable)		10%	70 V- 4
	Period							30-Yr Avg.
		(1000AF)	(1000AF)	[(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
:::::::::::::::::::::::::::::::::::::::				=======			========	=========
SPOKANE nr Post Falls (1,2)	APR-SEP	780	1380	1650	61	1920	2520	2720
	APR-JUL	790	1370	1630	62	1890	2470	2627
				[J			
SPOKANE at Long Lake (2)	APR-JUL	795	1300	1640	56 I	1980	2490	2937
				i I	i			
:======================================			========	' ===========	ا ===========		========	
SPOKANE PIVER RAS	T N			1	SPOKANE P	IVER RASIN		

SPOKANE RIVER BASIN Reservoir Storage (1000	AF) - End		SPOKANE RIVER BASIN Watershed Snowpack Analysis - April 1, 1992						
leservoir	Usable Capacity 	*** Usab This Year	le Stora Last Year	ge *** Avg	Watershed	Number of Data Sites	This Yea ====== Last Yr	r as % of ======= Average	
COEUR D'ALENE	291.2	168.7	182.2	234.3	Spokane River	17	60	58	

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

- 1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- 2) The value is natural flow actual flow may be affected by upstream water management.





COLVILLE - PEND OREILLE RIVER BASINS:



April 1, 1992: April 1 snow cover is 66% of average on the Pend Oreille and 53% on the Kettle. Snowpack at Bunchgrass Meadow SNOTEL site was 23.0 inches of water. The average April 1 reading is 28.0 inches. Precipitation during March was 35% of average, bringing the water year-to-date to 71% of normal. March streamflow was 91% of normal on the Pend Oreille River, 126% on the Columbia at the International Boundary, and 188% on the Kettle River. The forecast for the Kettle River streamflow is 72% of normal, the Pend Oreille, 60% down from 77% last month, and the Colville River, 72%, down from 90% of normal for the summer runoff period. Temperatures were five degrees above normal for March.

COLVILLE - PEND OREILLE RIVER BASINS

Streamflow Forecasts - April 1, 1992

		<====== Drier ====== Future Conditions ====== Wetter =====>>									
Forecast Point	Forecast	 =======	======================================								
	Period	90%	70%	50% (Most	Probable)	30%	10%	30-Yr Avg.			
		(1000AF)	(1000AF)		(% AVG.)	(1000AF)	(1000AF)	(1000AF)			
PEND OREILLE bl Box Canyon (1,2)	APR-SEP	5840	79 40	 8770	60	 9600	11800	 14590			
	APR-JUL	5610	7280	8040	60	8800	10500	13380			
	APR-JUN	4850	6 29 0	6940	60	7590	9030	11570			
CHAMOKANE CK nr Long Lake	MAY-AUG	1.6	4.6	 6.6	70	8.6	11.6	9.4			
COLVILLE at Kettle Falls	APR-SEP	46	75	 94	72	 113	142	131			
	APR-JUL	46	70	86	72	102	126	120			
	APR-JUN	44	65	80	72	95	116	111			
ŒTTLE nr Laurier	APR-SEP	810	1130	l 1340	72 <u> </u>	 1550	1870	1853			
	APR-JUL	800	1100	1300	74	1500	1800	1760			
	APR-JUN	7 20	990	1170	74	1350	1620	1585			
OLUMBIA at Birchbank (1,2)	APR-SEP	31900	35600	 37200	85 J	38800	42500	43810			
	APR-JUL	25600	28500	29800	85	31100	34000	35140			
	APR-JUN	18800	20900	21800	85	22700	24800	25670			
OLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	41300	47100	 49800	77	52500	58300	64780			
	APR-JUL	34500	39500	41700	77	43900	48900	54500			
	APR-JUN	27300	31200	32900	77	34600	3 8500	42730			
COLVILLE - PEND ORE				 	(OLVILLE	- PEND OREILL					

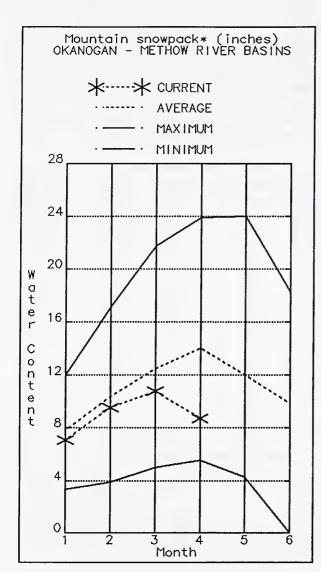
COLVILLE - PEND OREILLE RIVER BASINS Reservoir Storage (1000 AF) - End of March COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - April 1, 1992

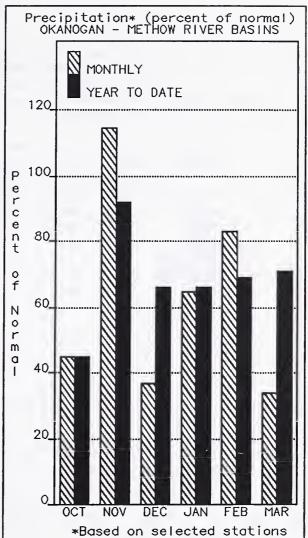
eservoir	Usable Capacity		able Stora Last	age ***	Watershed	Number of	This Year as % of	
	i i	Year	Year	Avg		Data Sites	Last Yr	Average
OOSEVELT	5232.0	3934.9	2512.5	1586.0 1586.0	Colville River	1	42	30
ANKS	715.0	678.8	608.0	583.0	Pend Oreille River	9	71	66
				i	Kettle River	9	48	53

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{2) -} The value is natural flow - actual flow may be affected by upstream water management.





OKANOGAN - METHOW RIVER BASINS:



April 1, 1992: Summer runoff forecast for the Okanogan River is 61% of normal, down from 78%; the Similkameen River, 61%, and the Methow River, 72% of normal, down from 85%. Temperatures were eight degrees above normal for the month. April 1 snow cover was 62% of average for the Okanogan, and 76% for the Methow Basin. March precipitation in the Okanogan-Methow was 34% of normal, with water year-to-date at 71% of average. March streamflow on the Methow River was 176% of normal, 131% on the Okanogan River, and 202% on the Similkameen River, the highest in the state. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 39.9 inches. Storage in the Conconully Reservoirs is 16,900 acre feet, which is 72% of capacity and 113% of April 1 average.

OKANOGAN - METHOW RIVER BASINS Streamflow Forecasts - April 1, 1992

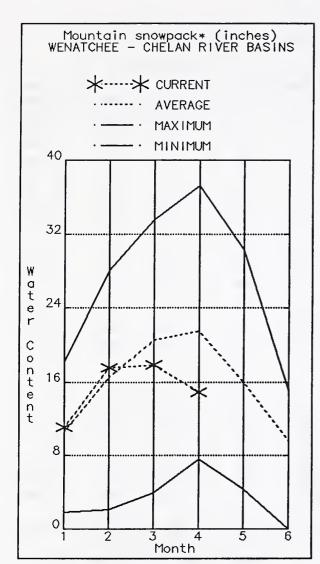
		Streamflow	V Forecasts	- April 1, 1	992 			
		<<=====	Drier ====	== Future C	onditions ==	===== Wetter	====>>	
Forecast Point	Forecast	 =======		Chance Of I	Exceeding * =		 	
	Period	90% (1000AF)	70% (1000AF)	•	Probable) (% AVG.)		10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN nr Nighthawk (1)	APR-SEP	555	760	====== 855	 61	950	1160	== ====== ============================
·	APR-JUL	530	720	810	62	900	1090	1304
	APR-JUN	420	605	690	62	775	960	1113
OKANOGAN RIVER nr Tonasket (1)	APR-SEP	405	810	995	61 J	1180	1580	1624
	APR-JUL	395	750	910	62 j	1070	1430	1467
	APR-JUN	370	640	765	62	890	1160	1234
METHOW RIVER nr Pateros (1)	APR-SEP	435	605	680	72	755	925	942
	APR-JUL	410	570	640	73	710	870	873
	APR-JUN	340	480	545	73	610	750	746
OKANOGAN - METHOW	RIVER BASINS			 -===================================	OKANOGAN		======== R RASINS	
Reservoir Storage (10		of March		i	Watershed Sno			1, 1992
	Usable	*** Usabl	 e Storage **	*		Numbe	r This	========= Year as % of
Reservoir	Capacity	This	Last	Water	shed	of	=====	

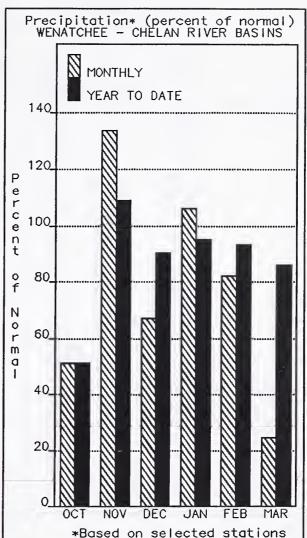
=========		========	=======			=======================================	=============	========	 :=======
Reservoir		Usable Capacity	*** Usab This	le Storag Last	e ***	Watershed	Number of	This Year	as % of
			Year	Year	A∨g		Data Sites	Last Yr	Average
CONCONULLY L	AKE (SALMON)	10.5	8.2	9.5	 8.0 	Okanogan River	26	53	62
CONCONULLY R	ESERVOIR	13.0	8.7	9.6	7.0	Methow River	4	60	76

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.





WENATCHEE - CHELAN RIVER BASINS:



April 1, 1992: April 1 snowpack in the Wenatchee Basin is 57%; the Chelan Basin 98% and the Entiat Basin, 59%. Snowpack continues low along Colockum Ridge, with Stemilt Creek at 66%. Reservoir storage in Lake Chelan is 158,000 acre feet or 74% of April 1 average and 23% of capacity. Lyman Lake SNOTEL had the most snow water with 56.6 inches of water; this site would normally have 57.1 inches. Runoff for the Entiat River is forecast to be 88% of normal for the summer. Summer forecasts for the Chelan River are for 85%, Wenatchee River's runoff 82%, and 76% on the Squilchuck-Stemilt. Streamflow for March on the Chelan River was 165% of average and the Wenatchee River was 164% of normal. Precipitation during March was 25% of normal in the basin and 86% for the year-to-date.

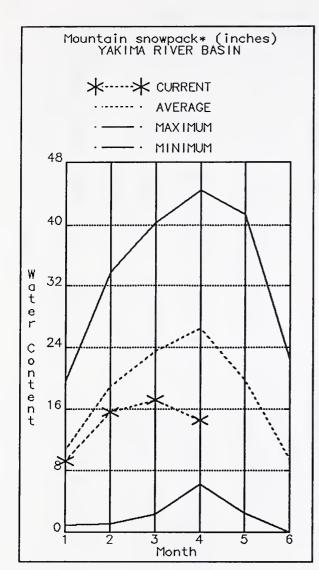
WENATCHEE - CHELAN RIVER BASINS Streamflow Forecasts - April 1, 1992

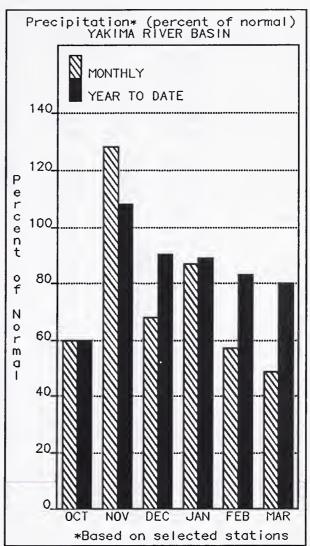
<<===== Drier ====== Future Conditions ====== Wetter ====>> ============ Chance Of Exceeding * ========================== Forecast Point Forecast | Period 90% 70% 50% (Most Probable) 30% 10% 30-Yr Avg. (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) | CHELAN RIVER at Chelan (1) APR-SEP APR-JUL APR-JUN APR-SEP STEHEKIN R. at Stehekin APR-JUL APR-JUN ENTIAT RIVER nr Ardenvoir APR-SEP APR-JUL APR-JUN WENATCHEE R. at Peshastin APR-SEP APR-JUL APR-JUN STEMILI or Wenatchee (miners in) MAY-SEP ICICLE CREEK nr Leavenworth APR-SEP APR-JUL APR-JUN COLUMBIA R. bl Rock Island Dam (2) APR-SEP APR-JUL APR-JUN WENATCHEE - CHELAN RIVER BASINS WENATCHEE - CHELAN RIVER BASINS Reservoir Storage (1000 AF) - End of March Watershed Snowpack Analysis - April 1, 1992 *** Usable Storage *** Usable Number This Year as % of of Reservoir Capacity This Last _____ Watershed Year Year Avg Data Sites Last Yr Average CHELAN LAKE 676.1 158.0 392.3 212.1 I **Entiat River** Wenatchee River Squilchuck Creek Stemilt Creek Colockum Creek

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.





YAKIMA RIVER BASIN:



April 1, 1992: April precipitation was 49% of normal and 80% for the water year-to-date. The outlook for irrigation water for the summer is fair with April 1 reservoir storage for the five major reservoirs at 816,400 acre feet, 110% of average. April 1 snowpack is 55% based upon 19 snow courses and SNOTEL readings. April 1 summer streamflow forecasts for the Yakima Basin vary throughout the basin as follows: the Yakima River at Cle Elum, 74 %; Naches River, 71%; the Yakima River near Parker, 70%, Ahtanum Creek, 83%, and Tieton River 70%. March streamflows varied with the Yakima River at Parker 120% of normal, 141% on the Yakima near Cle Elum, and 137% on the Naches River. Temperatures were five degrees above average for March. forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U. S. Bureau of Reclamation's forecast for the total water supply available which includes adjustments for reservoir operation and irrigation return flow.

		<<=====	== Drier ==	==== F	future Co	onditions ==	===== Wetter	====>>	
				•					
Forecast Point	Forecast	!					30%	10%	30-Ve Ava
	Period	90% (1000AF)	70% (1000AF)	•		Probable) (% AVG.)		(1000AF)	30-Yr Avg. (1000AF)
	==========	•		•			************	.=======	=========
YAKIMA RIVER at Martin (1)	APR-SEP	80	92	1	97	72	103	115	135
	APR-JUL	74	85	1	90	73	95	106	124
	APR-JUN	66	76	-	80	73	85	94	109
YAKIMA RIVER at Cle Elum (2)	APR-SEP	585	640	i	680	74	720	775	915
	APR-JUL	530	580	i	615	74	650	700	832
	APR-JUN	455	500	!	530	. 74	560	605	721
YAKIMA RIVER or Parker (2)	APR-SEP	1010	1240	-	1400	70	1560	1790	1994
TACION RIVER III TOTALI	APR-JUL	930	1140	i	1280	71	1420	1630	1805
	APR-JUN	820	1000	i	1130	71	1260	1440	1597
			0.4	- !	0.7	7,	93	10/	440
KACHESS RIVER or Easton (1)	APR-SEP	68	81	- !	87	74	87	106 98	118
	APR-JUL	66	77	-	82	74			111
	APR-JUN	59	69	-	73	74	78	87	99
CLE ELUM RIVER or Roslyn (1)	APR-SEP	280	325	i	345	77	365	410	448
	APR - JUL	260	300	-1	320	78	340	380	409
	APR-JUN	220	255	!	270	78	285	320	346
BUMPING RIVER or Nile (1)	APR-SEP	66	91	-	102	75	113	138	136
	APR-JUL	60	83	i	93	75	103	126	124
	APR-JUN	51	70	i	78	75	87	105	104
				!		7.	0.5	405	
AMERICAN RIVER or Nile	APR-SEP	78	85	!	90	76	95	102	118
	APR-JUL	73	80	!	84	77	89	95	109
	APR-JUN	62	67	H	71	77	75	80	92
TIETON RIVER at Tieton (1)	APR-SEP	97	144	İ	166	70	188	235	237
	APR-JUL	85	126	1	144	72	162	205	200
	APR-JUN	69	101	-	116	72	131	164	162
NACHES RIVER or Naches (2)	APR-SEP	420	520	-	590	71	660	760	832
	APR-JUL	385	480	i	540	72	605	695	7 55
	APR-JUN	340	415	ij	470	72	525	600	651
AHTANUM CREEK or Tampico (2)	APR-SEP	17.0	27		34	74	41	51	46
All Allow CREEK III Tally 100 (2)	APR-JUL	16.0	25	-	31	74	37	46	42
	APR-JUN	14.0	22	i	27	75	32	40	36
				i					
VANIMA DIVED DAGI				=======	:2====== 		VER BASIN	=======	
YAKIMA RIVER BASI Reservoir Storage (1		of March					vek basın nowpack Analysi	ic - Annil	1 1002
keservoir storage (1			=======	 =======	•		•		
	Usable		le Storage	***			Number		Year as % of
Reservoir	Capacity		Last	A 1	Water	shed	of		Y- A
		Year	Year	Avg					Yr Average
KEECHELUS	157.8	131.6		110.0		na River		60	49
KACHESS	239.0	186.4	216.3	187.0	Ahtan	num Creek	2	81	62
CLE ELUM	436.9	354.4	406.4	ا 290.0					
				į					
BUMPING LAKE	33.7	18.8	19.0	11.0					

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

142.0

153.2

The average is computed for the 1961-1990 base period.

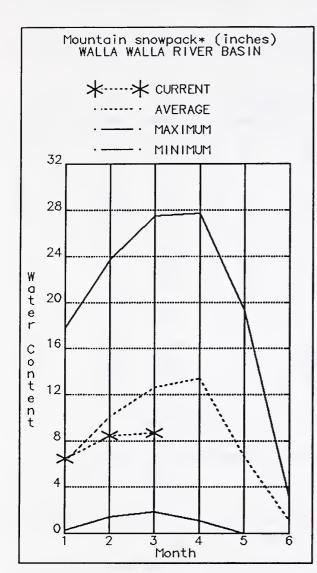
RIMROCK

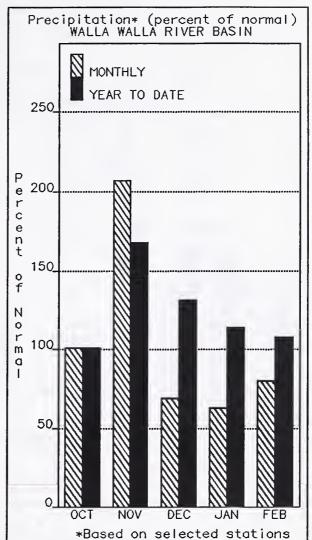
125.2

198.0

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.





WALLA WALLA RIVER BASIN:



April 1, 1992: March streamflow was 39% of normal on the Walla Walla River, 63% for the Snake River, and 70% on the Grande Ronde River near Troy. April 1 snowpack is at 30%, down from 69% last month. March precipitation was 26% of average, bringing the water year-to-date precipitation to 99% of normal. The forecast is for 57% of average streamflow in the Walla Walla River for the coming summer, the Grande Ronde, 55%; Snake River, 54%, and 46% for Mill Creek. Temperatures were three degrees above average for March.

WALLA WALLA RIVER BASIN

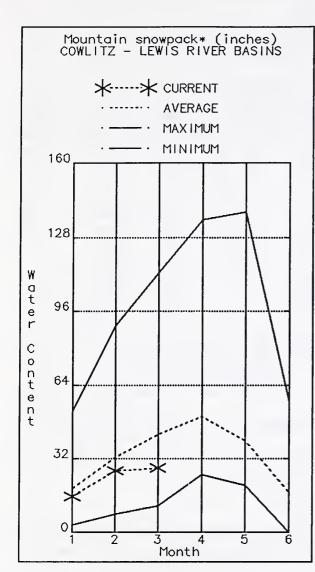
Streamflow Forecasts - April 1, 1992

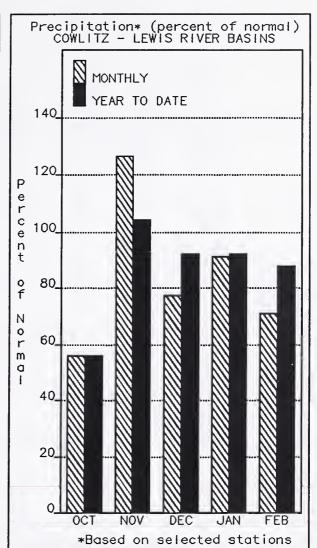
		<<===== 	Drier ===	====	future Co	nditions ==	===== Wetter	=====>>	
Forecast Point	Forecast	 =======		=== Cha	ance Of E	xceeding * =		=======	
	Period	90%	70%	50	0% (Most	Probable)	30%	10%	30-Yr Avg
		(1000AF)	(1000AF)	!	• •	(% AVG.)		(1000AF)	(1000AF
GRANDE RONDE at Troy (1)	APR-JUL	59	295		400	33	505	740	 1214
	APR-SEP	77	330	-	445	34	560	815	1312
SNAKE bl Lower Granite Dam (1,2)	APR-JUL	5070	8450		9990	46	 11500	14900	21650
	APR-SEP	5870	9670	-	11400	47	13100	16900	24 3 60
MILL CREEK at Walla Walla	APR-SEP	1.9	5.5		7.9	46	 10.3	13.9	17.1
	APR-JUL	1.8	5.4	1	7.8	46	j 10.2	13.8	16.9
	APR-JUN	1.8	5.3		7.7	46	10.1	13.6	16.7
SF WALLA WALLA nr Milton Freewater	APR-JUL	24	29		32	60	 35	40	53
COLUMBIA R. at The Dalles (2)	APR-SEP	50400	59300		63900	65	 69200	77100	98 910
	APR-JUL	43100	49800	i	54300	64	58800	65500	84710
	APR-JUN	35000	40400	İ	44100	64	47800 	53200	68890
WALLA WALLA RIVER B				' :====:	 I		' ======== LLA RIVER BASI		=========
Reservoir Storage (100		of March					nowpack Analys		1, 1992
======================================	Usable	======== *** Usabl	e Storage	***	======= 	=========	 Numbe	er This	:======= Year as % o
Reservoir	Capacity	This	Last		Water	shed	of		========
	i	Year	Year	Avg			Data Si		•
:======================================	========			-====	•	creek		46	30

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.





COWLITZ - LEWIS RIVER BASINS:



April 1, 1992: March precipitation was 23% of normal, bringing the water year-to-date precipitation to 80% of average. April 1 snow cover for the Cowlitz-Lewis River Basin is 49% down from 65% last month. The Paradise Park SNOTEL contained the largest water content for the basin with 53.3 inches of water. Normal April 1 water content is 62.5 inches. Forecasts for summer runoff in the Lewis River are 66%, and for the Cowlitz River, 68%. March streamflow on the Cowlitz River was 65% of average, and 50% on the Lewis River. Temperatures were five degrees above normal for March.

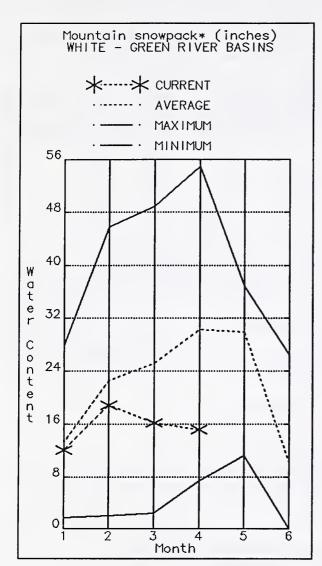
COWLITZ - LEWIS RIVER BASINS

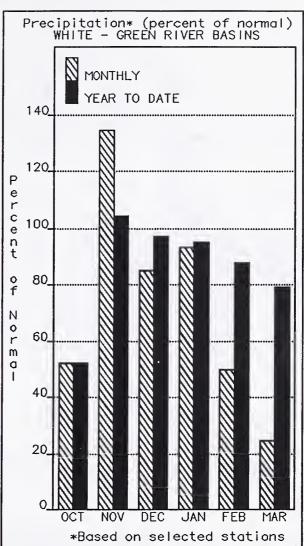
Streamflow Forecasts - April 1, 1992												
		<<======	Drier ====	== Future (Conditions =:	===== Wetter	=====>>					
Forecast Point	Forecast	 =======		= Chance Of	Exceeding * :							
Torecast Forme	Period	l 90%	70%		Probable)		10%	70 V= A				
	101100	(1000AF)	(1000AF)	•	(% AVG.)	(1000AF)	(1000AF)	30-Yr Avg. (1000AF)				
	:=== == =====	========	========		===========		=========	==========				
LEWIS RIVER at Ariel (2)	APR-SEP	465	665	800	66	935	1130	1204				
	APR-JUL	410	580	700	67	820	990	1051				
	APR-JUN	370	520	625	67	730	880	933				
COWLITZ R. bl Mayfield Dam (2)	APR-SEP	510	980	l 1300	66	 1620	2090	1970				
·	APR-JUL	450	860	1140	66	1420	1830	1731				
	APR-JUN	385	735	975	66	1210	1560	1477				
COWLITZ R. at Castle Rock (2)	APR-SEP	760	1330	 1720	64	 2110	2680	2667				
	APR-JUL	665	1160	1500	65	1840	2340	2325				
	APR-JUN	580	1010	1300	65	1590	2020	1995				
				 ========		 ===========						
COWLITZ - LEWIS RI	VER BASINS				COWLITZ	- LEWIS RIVER	BASINS					
Reservoir Storage (10	000 AF) - End	of March		į	Watershed S	nowpack Analys	sis - April	1, 1992				
=======================================	Usable	*** Usabl	e Storage *	======= **	:========	======================================	er This	Year as % of				
Reservoir	Capacity	This	Last	Wate	ershed	of	====	.=========				
	i	Year	Year A	vg İ		Data Si		Yr Average				
	.=22=====	========		 Cowl	litz River	7	55	52				
				 Lewi	is River	4	29	17				

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

^{(1) -} The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

^{(2) -} The value is natural flow - actual flow may be affected by upstream water management.





WHITE - GREEN RIVER BASINS:



April 1, 1992: Summer runoff is forecasted to be 77% on the Green River and 65% on the Cedar River. April 1 snowpack was 86% of normal on the White River and 27% in the Green Basin. Water content on April 1 at the Stampede Pass SNOTEL, at an elevation of 3860 feet, was 26.1 inches. This site has a April 1 average of 44.4 inches. March precipitation was 25% of normal, bringing the water year-to-date to 79% of average. Temperatures were five degrees above average for March.

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WHITE - GREEN RIVER BASINS
Streamflow Forecasts - April 1, 1992

				- April 1, 1	,,c			
Forecast Point	Forecast	İ	Drier ====			===== Wetter	i	
	Period	90% (1000AF)	70% (1000AF)	50% (Most	Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GREEN R bl Howard Hanson Dam (2)	APR-SEP	162	197	220	77	245	280	285
	APR-JUL	146	177	198	77	220	250	257
	APR-JUN	136	164	183	78	200	230	234
CEDAR RIVER nr Cedar Falls	APR-SEP	37	48	 55 	65	63	74	84
WHITE - GREEN RIVER	BASINS	========		 		GREEN RIVER BA	======= Sins	=======================================
Reservoir Storage (100	00 AF) - End	of March		i	Watershed S	Snowpack Analys	is - April	1, 1992
	Usable	*** Usabl	.e Storage *	======== **		Numbe	======== r This	========= Year as % of
Reservoir	Capacity	This	Last	Wate	rshed	of	=====	========
	İ	Year	Year A	vg -		Data Si	tes Last	Yr Average
				= = Whit	e River	3	 63	64

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

Green River

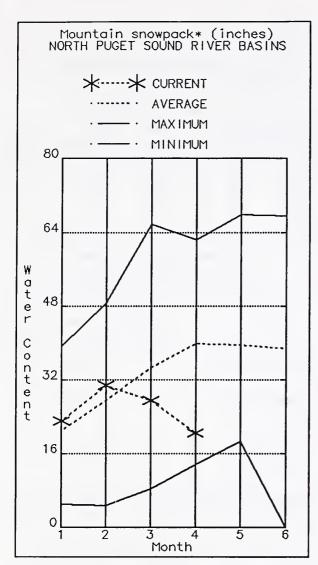
Cedar River

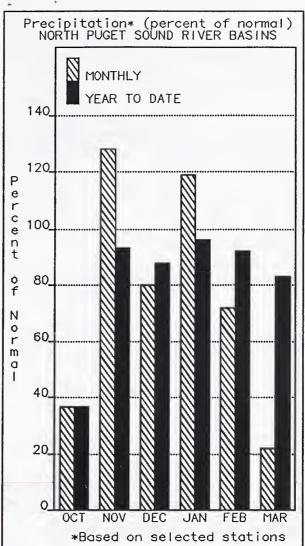
27

0

3**3**

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.





NORTH PUGET SOUND RIVER BASINS:



April 1, 1992: March streamflow in the Skagit River was 101% of average. Forecast for the Skagit River streamflow is 86% of normal for the spring and summer period. This forecast is down from 96% from last month. April 1 snow cover in the Skagit Basin is 74% of normal. Rainy Pass SNOTEL at elevation 4780 feet, has 40.4 inches of water content; normal April 1 water content is 38.0 inches. April 1 reservoir storage is above average, with Ross Lake Reservoir at 250% of normal and 53% of capacity. Precipitation for March was 22% of average with a water year-to-date at 83% of normal. March temperatures were five degrees above normal.

NORTH PUGET SOUND RIVER BASINS Streamflow Forecasts - April 1, 1992

Streamflow Forecasts - April 1, 1992											
=======================================		<======	======================================	======================================	Conditions =	====== Wetter	· =====>> 	====== ==============================			
Forecast Point	Forecast	======	=======	== Chance O	f Exceeding *		=======				
	Period	90%	70%	50% (Mo	st Probable)	30%	10%	30-Yr Avg.			
	İ	(1000AF)	(1000AF)	(1000A	F) (% AVG.)	(1000AF)	(1000AF)	(1000AF)			
SKAGIT RIVER at Newhalem (2)	APR-SEP	1520	1730	======== 1880	======================================	=====================================	2240	2185			
	APR-JUL	1290	1470	1590	87	1710	1890	1830			
•	APR-JUN	1000	1140	1230	87	1320	1460	1410			
				İ		İ					
NORTH PUGET SOUND	RIVER BASINS				NORTH PU	GET SOUND RIVE	R BASINS				
Reservoir Storage (1000 AF) - End	of March		İ	Watershed S	nowpack Analys	sis - April	1, 1992			
***************************************				:======= 1	=========		·				
	Usable		le Storage '			Numbe		Year as % of			
Reservoir	Capacity	This	Last	:	tershed	of		=======================================			
	 	Year	Year #	\vg		Data Si	tes Last	Yr Average			
ROSS	1404.1	745.7	630.8 29	98.0 Sn	oqualmie River	3	29	23			

Skykomish River

Skagit River

Baker River

59

53

53

74

43

86.2

8.0

The average is computed for the 1961-1990 base period.

DIABLO RESERVOIR

GORGE RESERVOIR

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

86.8

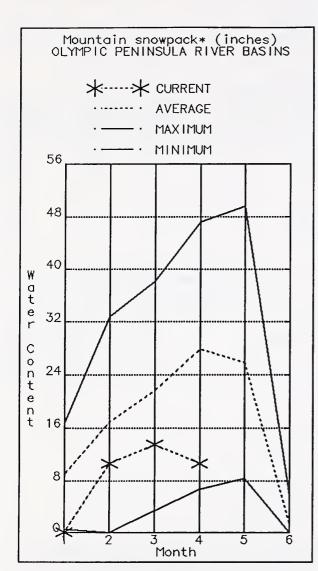
8.0

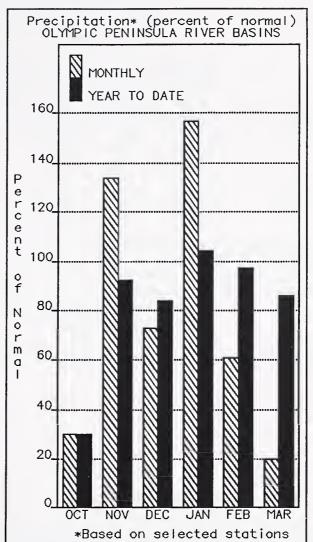
(2) - The value is natural flow - actual flow may be affected by upstream water management.

90.6

9.8

^{* 90%, 70%, 30%,} and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.





OLYMPIC PENINSULA RIVER BASINS:



April 1, 1992: March precipitation was 20% of average, with water

year-to-date precipitation accumulation at 86% of normal. April 1 snow cover in the Olympic Basin is below normal with the Elwah River at 3%, the Dungeness River at 33% and Morse Creek at 61%. April forecasts for streamflow in the basin are for 63% of average on the Dungeness River and 66% on the Elwha River. The Big Quilcene can expect much below normal runoff this summer. The Mount Crag SNOTEL near Quilcene had 12.6 inches on April 1, last year it had 13.1 inches. Temperatures were five degrees above normal for March.

OLYMPIC PENINSULA RIVER BASINS Streamflow Forecasts - April 1, 1992

Streamflow Forecasts - April 1, 1992 <<===== Drier ===== Future Conditions ====== Wetter ====>> Forecast Point ============= Chance Of Exceeding * ========================= Forecast | Period 90% 70% 50% (Most Probable) 30% 10% (1000AF) (1000AF) (1000AF) (% AVG.) (1000AF) (1000AF) DUNGENESS RIVER nr Sequim APR-SEP 110 125 160 APR-JUL 66 78 86 66 94 107 131 47 APR-JUN 56 62 77 66 68 94 330 ELWHA RIVER nr Port Angeles APR-SEP 240 295 66 365 420 502 APR-JUL 210 250 280 67 310 350 417 OLYMPIC PENINSULA RIVER BASINS OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End of March Watershed Snowpack Analysis - April 1, 1992 Usable | *** Usable Storage *** This Year as % of Number Reservoir Capacity | This Last Watershed -------Year Year Data Sites Last Yr Average Elwha River Morse Creek នា 61 Dungeness River 33

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

Quilcene River

Wynoochee River

O

O

- (1) The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) The value is natural flow actual flow may be affected by upstream water management.



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